


Amendments to the Claims

1. (Currently Amended) A method of forming a conductive line comprising the following steps:



forming a ~~polysilicon~~ silicon-comprising layer;
forming a silicide layer against the ~~polysilicon~~ silicon-comprising layer;
providing a conductivity-enhancing impurity within the silicide layer; and
after the providing of the conductivity-enhancing impurity, etching the ~~polysilicon~~ silicon-comprising layer and the silicide layer into a conductive line shape; and
during the same processing step, forming an oxide layer over the silicide layer and activating the conductivity-enhancing impurity within the silicide layer.

2. (Original) The method of claim 1 wherein the silicide comprises a metal selected from the group consisting of tungsten, titanium, molybdenum and cobalt.

3. (Currently Amended) The method of claim 1 wherein the steps of forming the silicide layer and providing the conductivity-enhancing dopant therein together comprise:

depositing a metal together with the conductivity-enhancing impurity on the ~~polysilicon~~ silicon-comprising layer; and

reacting the metal with the ~~polysilicon~~ silicon-comprising layer to form the silicide layer having the conductivity-enhancing impurity therein.

4. (Currently Amended) The method of claim 1 wherein,
the step of forming the silicide layer comprises chemical vapor depositing
silicide on the ~~polysilicon~~ silicon-comprising layer; and

the step of providing the conductivity-enhancing impurity comprises chemical
vapor depositing the conductivity-enhancing impurity *in situ* with the chemical
vapor depositing of the silicide.

5. (Currently Amended) The method of claim 1 wherein,
the step of forming the silicide layer comprises chemical vapor depositing
a tungsten-comprising silicide on the ~~polysilicon~~ silicon-comprising layer;

the step of providing the conductivity-enhancing impurity comprises chemical
vapor depositing the conductivity-enhancing impurity *in situ* with the chemical
vapor depositing of the tungsten-comprising silicide; and

the conductivity-enhancing impurity comprises a group III or a group V
element.

6. (Original) The method of claim 5 wherein the step of chemical vapor
depositing the conductivity-enhancing impurity comprises utilizing a precursor
compound selected from the group consisting of PH₃, AsH₃, and diborane.

7. (Original) The method of claim 1 wherein the conductivity-enhancing
impurity is provided to a concentration of at least about 1×10^{18} ions/cm³ within
the silicide layer.

8. (Original) The method of claim 1 wherein the step of forming the silicide layer and the step of doping the silicide layer together comprise:

providing a target comprising a metal, silicon and the conductivity-enhancing impurity; and

sputtering of the target to form the silicide layer and the conductivity-enhancing impurity within the silicide layer, the silicide layer comprising the metal.

9. (Original) The method of claim 1 wherein the step of providing the conductivity-enhancing impurity comprises:

ion implanting the conductivity-enhancing impurity into the silicide layer after forming the silicide layer.

10. (Currently Amended) The method of claim 1 wherein the ~~polysilicon~~ silicon-comprising layer is doped with the conductivity-enhancing impurity, and wherein the step of providing the conductivity-enhancing impurity comprises:

out-diffusing the conductivity-enhancing impurity from the doped ~~polysilicon~~ silicon-comprising layer into the silicide layer.

11. (Original) The method of claim 1 wherein the step of providing the conductivity-enhancing impurity comprises:

gas phase chemical doping of the silicide layer.

12. (Original) The method of claim 1 wherein the conductive line is a wordline.

Claims 13-14 (Previously Canceled).

15. (Currently Amended) A method of forming a conductive line comprising the following steps:

forming a ~~polysilicon~~ silicon-comprising layer;

forming a silicide layer against the silicon-comprising layer ~~of polysilicon~~;

during the forming of the silicide layer, providing a conductivity-enhancing impurity within the silicide layer; and

after providing the conductivity-enhancing impurity within the silicide layer, subjecting the silicide layer to a processing step of over 850°C for at least 10 seconds.

16. (Currently Amended) The method of claim 15 wherein the forming the silicide layer comprises depositing a metal layer over the ~~polysilicon~~ silicon-comprising layer and reacting the metal layer with the ~~polysilicon~~ silicon-comprising layer, and wherein the conductivity-enhancing impurity is provided within the metal layer prior to the reacting the metal layer with the ~~polysilicon~~ silicon-comprising layer.

17. (Currently Amended) The method of claim 15 wherein the forming the silicide layer comprises depositing a metal layer over the ~~polysilicon~~ silicon-comprising layer and reacting the metal layer with the ~~polysilicon~~ silicon-comprising layer, and wherein the conductivity-enhancing impurity is provided during a CVD process.

18. (Original) The method of claim 15 wherein the conductivity-enhancing impurity is provided during one of a CVD process and a sputter deposition.

19. (Original) The method of claim 15 wherein the conductivity-enhancing impurity is provided to a concentration within the silicide layer of at least about 1×10^{18} ions/cm³.

20. (Currently Amended) A method of forming a conductive line comprising the following steps:

forming a ~~polysilicon~~ silicon-comprising layer;
forming a silicide layer against the silicon-comprising layer ~~of polysilicon~~;
providing a conductivity-enhancing impurity within the silicide layer; and
subjecting the silicide layer to a rapid thermal processing step to exceed 850°C for at least 10 seconds while exposing the silicide layer to an oxygen-comprising atmosphere.

Claims 21-28 (Previously Canceled).

29. (Currently Amended) A method of forming a conductive line comprising:

forming a ~~polysilicon~~ silicon-comprising layer;

sputter depositing a silicide layer over the ~~polysilicon~~ silicon-comprising layer; and

providing a conductivity-enhancing impurity within the silicide layer; and

before the providing of the conductivity-enhancing impurity, patterning the silicon-comprising layer and silicide layer into a conductive line.

30. (Previously Added) The method of claim 29 further comprising exposing the silicide layer to an oxygen-comprising atmosphere.

31. (Previously Added) The method of claim 29 wherein the conductivity-enhancing impurity comprises phosphorous.

32. (Currently Amended) The method of claim 29 further comprising providing a dopant within the ~~polysilicon~~ silicon-comprising layer to a concentration of at least about 1×10^{19} ions/cm³.

Claims 33-36 (Previously canceled).

37. (Previously Added) The method of claim 1 wherein after the providing of the conductivity-enhancing impurity, forming source/drain regions.

38. (Previously Added) The method of claim 15 wherein after the providing of the conductivity-enhancing impurity, forming source/drain regions.

39. (Previously Added) The method of claim 20 wherein after the providing of the conductivity-enhancing impurity, forming source/drain regions.

40. (Previously Added) The method of claim 29 wherein after the providing of the conductivity-enhancing impurity, forming source/drain regions.
